

**Notes on the Breeding of the Giant Burrowing Frog at Coorow.**—I first saw the Giant Burrowing Frog (*Helioporus albopunctatus*) in the Coorow area shortly after a thunderstorm which yielded about 50 points of rain early in May 1947. The fall was sufficient to fill several small water holes in a local creek, and along the banks a number of tunnels some 2 inches across were observed. Two school boys, Bevan O'Callaghan and Ivan Broun, undertook to excavate one of these burrows under supervision on May 7.

A pair of frogs, male and female, were captured inside the burrow while spawning. The entrance was slightly above the water level—but this may have been due to the water in the creek subsiding during a dry spell following the rains. The tunnel led inward and slightly downward for about 18 inches, ending in a chamber about 8 inches across. The eggs, which were floating in water in the nest cavity, were carefully removed and placed in a two-gallon jar of creek water. Their subsequent history is as follows:—

On May 21 the embryo tadpoles could be seen wriggling in the jelly. The first hatchings occurred on May 24, 17 days after spawning. It is interesting to note that at this time the water hole was quite dry again, so presumably either the eggs normally would remain dormant until a good fall of rain had filled the hole, flooded the tunnel and soaked them, or the young tadpoles have the capacity to survive on damp soil for some days. It is also possible that the whole spawning might have failed through failure of following rains. Front legs did not appear on the tadpoles until



Great Western Burrowing Frog (*Helioporus albopunctatus*).

—Photo S. R. White.

September 25, and by September 30 the first tadpole had completed its metamorphosis.

—S. R. WHITE, Government School, Morawa.

**The Starling in Western Australia.**—When reading through a file of the local newspaper, *The Blackwood Times*, I came across a reference to the Starling (*Sturnus vulgaris*) which is, perhaps, worth placing on record. It was reported in the issue of December 22, 1914, that a letter regarding Starlings at Balingup had been sent to the Colonial Secretary by the Balingup Road Board enquiring whether it was lawful to kill Starlings, and whether, if so, there was provision for a bonus for their eradication. The paper stated that, in view of the menace to the fruit-growing industry should the Starling become established in the district, the Balingup Road Board had decided to offer a bonus of 5/- for each bird killed; they had decided to notify the Department of Agriculture of their action. The next reference to the bird that I have found in the newspaper is in the issue of February 23, 1915, when it was stated that at a meeting of the Bridgetown Fruitgrowers' Association a letter was received from the Balingup Branch of the Farmers' and Settlers' Association asking what the former Association intended to do regarding the starlings "which, it had been reported, are increasing in numbers near Bridgetown." The Horticultural Adviser (a Victorian), who was present at the meeting stated that he had seen birds killed at Balingup and had no doubt they were starlings. As several members expressed the opinion that they would not know a starling if they saw one it was decided to ask the Agricultural Department to send a stuffed specimen of the bird to Bridgetown as a guide to fruitgrowers. A further report in the newspaper states that a mounted specimen was duly received and was exhibited at a meeting of the Fruitgrowers' Association on March 19, 1915. Thereafter it was exhibited in a shop window in the town.

I have made enquiries in Bridgetown and Balingup and am told that two starlings were shot there and a nest found in a tree which was cut down. The birds were shot by the late Mr. Ernest Collins. Unfortunately the books of the Road Board covering the period are not now to be found.

Two other references to the Starling in Western Australia can be recorded. The first is an article, "The Starling Scare," by Adrien Jean Despeissis, Under-Secretary for Agriculture in the *Journal of the Department of Agriculture*, vol. 13, March 1906, pp. 238-240, which refers to an unconfirmed rumour of starlings occurring at Guildford, due to a confusion, it is indicated, with Wattle-birds. The second occurs in the report of the annual meeting of the South Australian Ornithological Association of March 30, 1917 (*South Australian Ornithologist*, vol. 3, July 1, 1917, p. 56) when Mr. W. B. Alexander stated that "recently" a Starling had been sent to Perth for identification from the Albany district. I have not, as yet, been able to find any further references to these reputed occurrences of the bird at Balingup and Albany.

—H. M. WHITTELL, Bridgetown.